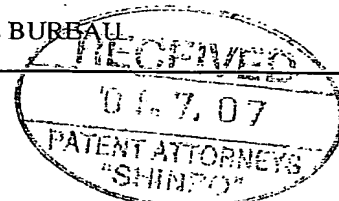


**PCT**

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44bis.3(c) and 72.2)

From the INTERNATIONAL BUREAU



To:

SEKINE, Takeshi  
Patent Attorneys "Shinpo", 1-20-10-203, Takadanobaba,  
Shinjuku-ku, Tokyo  
1690075  
JAPON

|   |   |
|---|---|
| Date of mailing (day/month/year)<br>29 June 2006 (29.06.2006) |   |
| Applicant's or agent's file reference<br>PCTF184 (FP359US)    | IMPORTANT NOTIFICATION  |
| International application No.<br>PCT/JP2004/008203            | International filing date (day/month/year)<br>11 June 2004 (11.06.2004) |
| Applicant<br>ZEON CORPORATION et al                           |   |

## 1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

## 2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

## 3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Yoshiko Kuwahara

Facsimile No.+41 22 740 14 35

Facsimile No.+41 22 338 90 90

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44*bis*)

|  |  |   |
|--|--|---|
| Applicant's or agent's file reference<br>PCTF184   | <b>FOR FURTHER ACTION</b>  | See item 4 below  |
| International application No.<br>PCT/JP2004/008203   | International filing date ( <i>day/month/year</i> )<br>11 June 2004 (11.06.2004) | Priority date ( <i>day/month/year</i> )<br>12 September 2003 (12.09.2003) |
| International Patent Classification (8th edition unless older edition indicated)<br>See relevant information in Form PCT/ISA/237 |  |   |
| Applicant<br>ZEON CORPORATION  |  |   |

|                                     |  |   |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
|-------------------------------------|--|---|-----------|---------------------|--------------------------|------------|----------|--------------------------|-------------|--|--------------------------|------------|----------------------------|-------------------------------------|-----------|---|--------------------------|------------|-------------------------|-------------------------------------|-------------|--|-------------------------------------|--------------|---|
| 1.                                  | This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 <i>bis</i> .1(a).  |   |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
| 2.                                  | This REPORT consists of a total of 7 sheets, including this cover sheet.<br><br>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.  |   |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
| 3.                                  | <p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> | <input checked="" type="checkbox"/>   | Box No. I | Basis of the report | <input type="checkbox"/> | Box No. II | Priority | <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | <input type="checkbox"/> | Box No. IV | Lack of unity of invention | <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | <input type="checkbox"/> | Box No. VI | Certain documents cited | <input checked="" type="checkbox"/> | Box No. VII | Certain defects in the international application | <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |
| <input checked="" type="checkbox"/> | Box No. I  | Basis of the report   |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
| <input type="checkbox"/>            | Box No. II   | Priority  |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention  |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
| <input checked="" type="checkbox"/> | Box No. V  | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited   |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
| <input checked="" type="checkbox"/> | Box No. VII  | Certain defects in the international application  |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
| <input checked="" type="checkbox"/> | Box No. VIII   | Certain observations on the international application   |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |
| 4.                                  | The International Bureau will communicate this report to designated Offices in accordance with Rules 44 <i>bis</i> .3(c) and 93 <i>bis</i> .1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44 <i>bis</i> .2).   |   |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                                     |             |  |                                     |              |   |

|   |  |
|---|--|
| The International Bureau of WIPO<br>34, chemin des Colombettes<br>1211 Geneva 20, Switzerland | Date of issuance of this report<br>20 June 2006 (20.06.2006) |
| Facsimile No. +41 22 740 14 35  | Authorized officer<br><br><b>Yoshiko Kuwahara</b>            |
| Telephone No. +41 22 338 90 90  |  |

# PATENT COOPERATION TREATY

TRANSLATION

From the  
INTERNATIONAL SEARCHING AUTHORITY

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year)

Applicant's or agent's file reference

**PCTF184**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/JP2004/008203**

International filing date (day/month/year)

**11.06.2004**

Priority date (day/month/year)

**12.09.2003**

International Patent Classification (IPC) or both national classification and IPC

Applicant

**ZEON CORPORATION**

1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited  |
| <input checked="" type="checkbox"/> | Box No. VII  | Certain defects in the international application   |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application  |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/008203

Box No. 1      Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

\_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/008203

| Box No. V   | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |            |     |
|---|--|------------|-----|
| <b>1. Statement</b>   |  |            |     |
| Novelty (N)   | Claims   | 1-15       | YES |
|   | Claims   |            | NO  |
| Inventive step (IS)   | Claims   | 10         | YES |
|   | Claims   | 1-9, 11-15 | NO  |
| Industrial applicability (IA)   | Claims   |            | YES |
|   | Claims   |            | NO  |
| <b>2. Citations and explanations:</b>   |  |            |     |
| <p>Document 1: JP 6-63387 A (Ricoh Co. Ltd.), 08 March 1994</p> <p>Document 2: JP 57-90643 A (Ricoh Co. Ltd.), 05 June 1982</p> <p>Document 3: JP 57-139753 A (Ricoh Co. Ltd.), 28 August 1982</p> <p>Document 4: JP 2003-57867 A (Mitsubishi Chemical Corp.), 28 February 2003</p> <p>Document 5: JP 2003-57951 A (Canon Inc.), 28 February 2003</p> <p>Document 6: JP 2003-330223 A (Canon Inc.), 19 November 2003</p> <p>Document 7: JP 2003-15364 A (Canon Inc.), 17 January 2003</p> <p>Document 8: JP 2001-281909 A (Nippon Zeon Co., Ltd.), 10 October 2001</p> <p>Document 9: JP 2003-215853 A (Nippon Zeon Co., Ltd.), 30 July 2003</p> <p>Document 10: JP 2001-215749 A (Nippon Zeon Co., Ltd.), 10 August 2001</p> <p>Document 11: JP 11-72949 A (Nippon Zeon Co., Ltd.), 16 March 1999</p>  |  |            |     |
| <p><b>Claims 1-3</b></p> <p>Document 1 describes a toner for electrostatic charge development toner comprising colored resin particles composed of at least a binding resin and a coloring agent, wherein the volume-average particle size (Dv) of the colored resin particles is 4-10 micron and a zeta potential of the toner for electrostatic charge development is -15 mV. Document 1 does not describe the average roundness, but because the toner is obtained by a polarization method it can be assumed to have a shape close to that of a sphere. Furthermore, documents 4 and 5 describe a technology for fitting the average roundness into a range of 0.93-0.995. Document 1 does not describe a feature according to which the difference between the initial zeta potential of the electrostatic charge development toner and the zeta potential after the toner has been allowed to stay for 2 weeks under high-temperature and high-humidity conditions represented by a temperature of 50°C and a humidity of 80% is less than 5 mV, but documents 2 and 3 describe a technology for reducing the zeta potential after a 3 month period, thereby inhibiting the fluctuations of electric characteristics. The technology of documents 2, 3 relates to liquid developing agents, but is also applicable to the zeta potential of toners for electrostatic development described in document 1.</p> |  |            |     |
| <p><b>Claim 4</b></p> <p>A constitution according to which the acid value of THF-soluble components is 4 mg KOH/g or less is described in document 6.</p>   |  |            |     |

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/008203

Box No. VII      Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

As for the numeric values of a hydroxyl group value (a) and (a × b) of the parting agent in embodiment 1 and comparative example 1 presented in table 1 of Par. No. 0084, despite the fact embodiment 1 and comparative example 1 use the same parting agent, as explained in Par. No. 0079, different numerical values for the acid number of the parting agent are described. Accordingly, embodiment 1 and comparative example 1 have no consistency.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/008203

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

$\sigma 2$  values in claims 12 and 13 lack sufficient support.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

Claims 5, 6

The constitution according to which a polyfunctional ester compound with a hydroxyl group value (a) of 4 mg KOH/g or less is contained as a parting agent, and the product of number of parts by weight of the parting agent that were added to 100 parts by weight of the binding resin (b) and the hydroxyl group value (a) is 40 or less and 30 or less is described in document 8.

Claim 7

The constitution according to which the ratio ( $D_v/D_p$ ) of the volume-average particle diameter ( $D_v$ ) and the number-average particle diameter ( $D_p$ ) is 1.0-1.3 is described in document 1.

Claim 8

The constitution according to which a charge control agent is contained is described in document 1.

Claim 9

A constitution according to which a charge control agent in the charge control resin has a number average molecular weight of 3,000-30,000 is described in document 9.

Claim 10

The constitution according to which a charge control agent in the charge control resin has an acid value of 0.03-15 mg KOH/g is not described in any of the documents cited in the ISR and is not obvious to a person skilled in the art.

Claim 11

The constitution according to which the parting agent is a synthetic wax or a polyfunctional ester compound is described in document 8.

Claims 12-15

The values of  $\sigma_2$ ,  $\sigma_2 - \sigma_1$  specified in claims 12-15 are described in documents 10, 11.